

REMARKS

I. CLAIM CHANGES

Communication system claim 1, connection device claim 18, and method claim 26 have been amended to include limitations that further distinguish their subject matter from the cited prior art.

Interface device claims 24 and 25 have been canceled, because they lack distinguishing limitations and/or details of the interface device itself, although they included distinguishing limitations and/or details of the communication system in which the interface device is used. However since claims 24 and 25 are claims for the interface device, not claims for the communication system, they were canceled because of the aforementioned lack of distinguishing information regarding the interface device itself.

Communication system claim 1, connection device claim 18, and method claim 26 have been amended to limit their subject matter to a communication system in which the at least one connection device connects the interface device to the corresponding participating device *indirectly via the communication line*. The basis for this wording appears in the applicants' originally filed specification on page 15, especially lines 11 to 16. This key limitation excludes communication systems in which the interface device is directly connected to the participating

device via a plug connection (connecting device) *without using the communication line* that connects the participating devices with each other.

It is applicants' intention to limit coverage to communication systems in which information is transmitted via the communication line between a selected one of the participating devices and an interface device. The participating device to be interrogated or controlled is chosen by connecting the interface device to only a particular connection device (or devices) that is associated with the participating device.

Furthermore communication system claim 1, connection device claim 18, and method claim 26 have been amended to limit their subject matter to a communication system in which the respective connection devices are not part of or included in the participating devices and in which the connection devices are not part of the interface device. Applicants' figure 1 and the detailed description on pages 15 to 17, especially page 15, lines 4 and following, provide the basis for these limitations.

These limitations for example help to avoid rejections based on prior art in which the connection device is part of the participating device, for example in the case of a computer loaded with plug and play software.

Dependent claim 21 was amended to correct an error in its title and formal errors in its subject matter.

Dependent claim 28 is a new dependent communication system claim that claims a preferred embodiment that is somewhat different than those claimed by the other dependent claims.

II. OBVIOUSNESS REJECTION

Claims 1 to 27 were rejected under 35 U.S.C. 103 (a) as obvious over U.S. Patent 6,717,382, (Graiger, et al -- referred to herein below as US '382), in view of U.S. Patent 6,003,135 (Bialick,et al -- referred to herein below as US '135).

Communication system claim 1 has been amended to claim a communication system in which the at least one connection device connects the interface device to the corresponding participating device ***indirectly via the communication line.***

US '382 (embodiment of fig. 2) discloses a communication system with plural participation devices 2 each directly connected to a line (bus system 7) and thus to each other. Control and/or monitoring units 9 are connectable with the plural participation devices 2 via a connection device, namely optical receiver 20 and interface 14, which is partially in each participation device 2 (column 8, lines 20 to 23). Optical receiver 20 is shown in the device 2.

However this communication system of the prior art differs from applicants' claimed communication system of amended claim 1 in that the connection device is not directly connected to the line 8. In other words, the at least one connection device of fig. 2 of US '382 does **not** connect the "interface device" 9 to the corresponding participating device ***indirectly via the communication line***, as in amended claim 1, but instead directly.

Furthermore in the case of the embodiment of fig. 2 that connection device (20, 19) is part of the participating devices and the interface device as shown in fig 2 of US '382. This is again completely the opposite from the amended claim 1 (new "wherein" clause in claim 1).

In the embodiment of fig. 3 the interface device (control and/monitoring device 9 of US '382) still contains the connecting device (19, 20) that allows for an exchange of data between the interface device and the participating devices. Thus like the embodiment of fig. 2 in the embodiment of fig. 3 there is a connecting device for connecting the participating device and interface device of the reference that is part of the both the participating device and the interface device. The opposite is now required by the "wherein" paragraph added to claim 1 in the case of applicants' amended claim 1; according to the amended claim 1 the connecting device is not part of the participating device and not part of the interface device. The connecting device of the present invention is independently connected with the communication line and exchanges data with the appropriate participating device that is also connected independently to the communication line.

US '382 also teaches directly monitoring and controlling the participating devices with the interface unit 9 by directly connecting the interface unit 9 directly to the network or communication line via a lead 6, which is explained in column 9, lines 62, to column 10, line 28. However because of the lack of an intervening connection device in the lead 6 or connected with the participating device to be interrogated or controlled, there is danger of errors by an inattentive operator, as

explained in column 10, lines 4 to 7, of US '382.

US '382 does not disclose a communication system with plural participating devices connected to each other via a communication line, each participating device of which has at least one connecting device that is specifically associated with it, as claimed in amended claim 1, and that is independently connected to the communication line, as claimed in amended claim 1. A connection device 19,20 of US '382 is associated with each of the interface devices 9 of US '382 but it is not connected to the communication line independently of the participating device, but instead is part of the participating device as shown in figs. 2 and 3 of US '382. Furthermore there is no connection device corresponding applicants' *readable* connection device in auxiliary line 6 that is separate from both the interface device and the participating device as claimed in amended claim 1. The teachings of US '382 are the opposite from the claimed invention according to claim 1.

It is well established that a prior art reference that teaches the opposite from a claimed invention cannot, alone or in combination with another prior art reference, establish a case of *prima facie* obviousness under 35 U.S.C. 103 (a) of the claimed invention. See M.P.E.P. 2145 X and also the Federal Circuit Court of Appeals has said:

“That the inventor achieved the claimed invention by doing what those skilled in the art suggested should not be done is a fact strongly probative of nonobviousness.” in ***Kloster Speedsteel AB v. Crucible Inc.***, 230 U.S.P.Q. 81 (Fed. Cir. 1986); on rehearing 231 U.S.P.Q. 160 (Fed. Cir. 1986).

US '382 describe a communication system in which respective connecting devices (19, 20) directly connect the interface device 9 to corresponding participating devices (machines 2 and/or control devices 5). This is the opposite from the amended claim 1 that requires indirect connection via the communication line.

Applicants claim a more flexible system in which at least one connecting device including readable means is connected independently to the communication line that connects the participating devices with each other. Each connecting device for the respective participating device is used to individually and separately control or interrogate the associated participating device according to the information stored in the readable means.

US '135 is not relevant to the above new limitations that have been included in communication system claim 1, because it does not disclose a communication system in which a plurality of participating devices, machines and/or control devices, are connected, independently of each other, to a communication line. Thus US '135 cannot be combined with US '382 to obtain a communication system as is now claimed in applicants' amended claim 1.

The reason for the obviousness rejection of communication device claim 1 that was presented in the third full paragraph on page 3 of the Office Action is no longer sufficient because of the new limitations that have been added to claim 1.

The added modifications of the combined subject matter of US '382 and US '135 would not be obvious to one of ordinary skill in the art (M.P.E.P. 2141) from the prior art. In order to arrive at the claimed invention these modifications

include the separation of the connection devices 19,20 from the “interfaces” 9 of US ‘382 and their modification by addition of a readable means that includes information regarding the associated participating device and then their separate independent connection to the bus 7 or communication line.

The invention claimed in amendment claim 1 is **not** a combination of known elements that perform their known functions to obtain an obvious result. Instead they are connected and cooperate in an unobvious manner to provide a system that provides a great increase in flexibility and reliability that e.g. helps to overcome possible inattentive operation of the interface. Also the modular aspect of the present system is particularly helpful when additional participating devices are added to the line with additional connection devices, since in relation to the direct connection via line 6 of US ‘382 software modifications of the interface software may be minimized because of the presence of the independent connection devices according to applicants’ claim 1. Neither reference suggests these modifications. Also they are not apparent from the prior art in general.

Dependent communication system claims 2 to 17 should be allowable because the amended claim 1 is allowable.

Method claim 26 includes the following additional distinguishing limitation that was added to step c):

“said communication connection connecting the interface device with the corresponding participating device indirectly by means of said at least one connection device via the communication line”.

The method described in US ‘382 does not include this step limitation because it is performed by the communication system according to claim 1. Method claim 26 claims a method of operating the communication system according to claim 1.

In the method of US '382 in one embodiment the communication by the connecting devices is performed wirelessly without transmission of signals via the communication line or bus that connects the connection devices. In the other embodiment the interface device is directly connected with the participating devices without the presence of a readable connection device according to the present invention.

Thus one of ordinary skill in the art would not arrive at the method claimed in method claims 26 and 27 from a combination of US '382 and US '135.

For the foregoing reasons and because of the additional limitations included in the amended claims, withdrawal of the rejection of amended claims 1 to 23 and 26 to 27 under 35 U.S.C. 103 (a) as obvious over U.S. Patent 6,717,382, in view of U.S. Patent 6,003,135 is respectfully requested.

For the foregoing reasons it is respectfully submitted that new dependent claim 28 should not be rejected under 35 U.S.C. 103 (a) as obvious over U.S. Patent 6,717,382, in view of U.S. Patent 6,003,135.

Should the Examiner require or consider it advisable that the specification, claims and/or drawing be further amended or corrected in formal respects to put this case in condition for final allowance, then it is requested that such amendments or corrections be carried out by Examiner's Amendment and the case passed to issue. Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing the case to allowance, he or she is invited to telephone the undersigned at 1-631-549 4700.

In view of the foregoing, favorable allowance is respectfully solicited.

Respectfully submitted,

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